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ABSTRACT

This study concerning the continued heavy drinking rate among Massachusetts college students sought to: (1) determine the specific changes in college drinking since a similar study on the topic was done in 1977; (2) determine the types of problems experienced by heavy drinkers; and (3) search for factors which might account for the continuation of this high risk behavior. Surveys were sent to a random sample of 200 freshman students from a pool comprised of the freshmen at 17 colleges. A total of 3 mailings were sent, for an overall response rate of 64 percent. In addition, 73 deans of students at Massachusetts colleges completed a questionnaire on problems in their student population. Their response rate was 72.7 percent. Results revealed the following: drinking is popular among students; many are heavily involved with alcohol; the legal drinking age is related to the nature of drinking among the underage freshmen; almost no students viewed themselves as problem drinkers; illicit drug use and smoking were less common than drinking; compared to 1977, current heavy use of alcohol remained constant with only half as many freshmen using marijuana, cocaine or cigarettes; automobile safety is a major problem; drinking patterns begin in high school and increase in college where it is highly social and typified by binge drinking; binge drinkers are heavily involved with alcohol, experience alcohol related problems, and have poor auto safety records. Also, according to the college deans surveyed, student alcohol use presents a serious problem for their institutions. (Contains 19 references.) (JB)

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ALCOHOL AND THE COLLEGE FRESHMAN: "BINGE" DRINKING AND ASSOCIATED PROBLEMS

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ALCOHOL AND THE COLLEGE FRESHMAN: "BINGE" DRINKING AND ASSOCIATED PROBLEMS

A Report to the AAA Foundation for Traffic Safety

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and
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INTRODUCTION

COLLEGE ALCOHOL USE

Alcohol use has been part of the college scene since the hallmark study of Straus and Bacon in 1949 (1). College students continue to drink at high rates. 1988 data from a national sample of high school seniors followed up through college by the Monitoring the Future Project (2) indicate that 77% had consumed alcohol in the past thirty days and that 43% had five or more drinks in a row in the past two weeks. These rates are virtually identical to those obtained in 1980.

Other studies have shown sustained high rates of alcohol consumption by college students in the 1980's. Engs and Hanson (3) in examining students enrolled in sociology and health or physical education courses at 56 universities found that while the number of students who drank decreased between 1983 and 1987, the number of heavy drinkers remained the same. Wechsler and McFadden (4), in a study of over 7000 students at 34 New England colleges in 1977 found that 30% of men and 13% of women were classified as frequent heavy drinkers. Meilman et al. (5) conducted a study in 1987 at one of the colleges which Wechsler and McFadden studied ten years earlier. Meilman found that while the number of daily drinkers decreased, the overall number of students who drank weekly or more frequently remained constant over the decade. Recent studies at other campuses also indicate high drinking levels (6,7).

OTHER SUBSTANCE USE

The continuing high rates of alcohol use contrast sharply with a dramatic decrease in other substance use among the same college population. Between 1980 and 1988 thirty day prevalence of marijuana use dropped from 34% to 17%, and daily use from 7% to 2%. Daily smoking of a half pack or more of cigarettes dropped from 13% to 7% during the same time period (2).

For the nation as a whole, data from the National Household Survey on Drug Abuse (8,9) and, from the Monitoring The Future Project Surveys (2,10) are consistent in documenting a sizeable drop in the use of marijuana, cocaine, and cigarettes over the past decade, and, more recently, a relatively small decrease in alcohol consumption. For example, the proportion of persons 18 to 25 years of age using marijuana in the past month dropped from 34% in 1979 to 22% in 1985 (8,9). Among high school seniors, use of marijuana in the past month dropped from 37% in 1979 to 17% in 1989 (10). Although the rate of decline has recently slowed, thirty day prevalence of cigarette consumption among high school seniors dropped from a high of 39% in 1976 to 29% in 1989 (2,10). Among adults 18 to 25 years of age the drop in cigarette use has been from 47% in 1977 to 37% in 1985 (8,9).

Decreases in alcohol consumption have been much smaller. National data based on sales indicate an 8% drop in per capita ethanol consumption in the 1980's from a high of 2.76 gallons in 1980 to 2.54 gallons in 1987 (11). Thirty day prevalence rates for high school seniors have dropped from a high of 72% in 1980

to 60% in 1989 (10). For young adults the drop has been from 76% in 1979 to 71% in 1985. In addition, recent episodic drinking in high school seniors, as measured by consumption of five or more drinks in a row in the past two weeks, dropped from a high of 41% in 1983 to 33% in 1989.

ALCOHOL AND OTHER SUBSTANCE USE: DIVERGING TRENDS

Among college students indications are strong that trends in alcohol use are at variance with trends in the use of other substances.

The authors of the Monitoring the Future Project conclude that with respect to alcohol use: "today's college students.... compared to their age peers (have) a higher monthly prevalence (77% versus 69%) .... The most important difference, however, lies in the prevalence of occasions of heavy drinking (five or more drinks in a row in the past two weeks) which is 43% among college students versus 36% among their age peers." (2, p.265)

However, "..... for nearly all other drugs, use among college students now tends to be lower than among their age peers...." (2, p.264) "By far the largest difference between college students and others their age occurs for cigarette smoking. For example, their prevalence of daily smoking is only 12% versus 28% for all high school graduates that age who are currently not in college full-time." (2, p.265)

HEALTH RELATED BEHAVIORS

The high college rates of alcohol use are particularly surprising because most improvements in health related behaviors usually occur among the more educated groups in our society earlier and more strongly.

Smoking rates are sharply lower among college graduates than among the less educated. Pierce et al. (12) using data from the National Health Interview Surveys report smoking prevalence among college graduates was 18% compared to 34% for persons without a high school diploma, and that the rate of decline was five times faster among the former group. Data from the National Household Survey (9) also indicates that 19% of college graduates were 20% or more above desirable body weight compared to 31% of persons without a high school diploma, and 24% of high school graduates.

Use of seat belts is also strongly related to level of education. Goldbaum et al. (13) found that 85% of persons who did not graduate from high school did not regularly use seat belts, compared to 60% of college graduates.

THE STUDY

RESEARCH GOALS

The present study was undertaken in order to learn more about the continuing heavy drinking rate among college students suggested by recent research. The aims were to:

- determine the specific changes in college drinking since the 1977 Wechsler, McFadden study;

- determine the types of problems experienced by heavy drinkers;

- search for factors which may account for the continuation of this high risk behavior.

METHOD

Twenty-one colleges in Massachusetts were contacted regarding participation in a survey. These schools were selected so that the final sample would include state, private, all-women's, and junior colleges of varying size and locality. Nineteen colleges agreed to participate. Due to low response rates, one junior college and the one technical college in the sample were excluded leaving 17 schools: 6 private, 6 state, 2 all women's, and 3 junior colleges. In order to provide generalizability to most other college data, which is based on four-year institutions, the junior colleges have been omitted from this report.

Student subjects were selected within schools by drawing a

random sample of 200 names from the roster of freshman enrollees. Surveys were sent to the student's mailbox on campus, or to their home address if they lived off-campus. Responses to the survey were entirely voluntary and anonymous. A total of three mailings were sent, with an overall response rate of just over 64 percent. There were no significant differences in alcohol or drug use variables across the three mailings. The sample provided at each of the participating schools is presented in Table 1.

The survey instrument is based on prior surveys done by the principal investigator (Wechsler and McFadden, 4), and also on questions in the Monitoring the Future annual surveys (2,10). The questions covered a range of alcohol issues including use, attitudes, adverse consequences, and locations of drinking. Other topics covered by the survey included students' opinions about their college, behaviors in high school, smoking and illicit drug use, sexual behavior, driving behavior, and general health issues.

The survey contained a self-generated identifier to allow future linkage of freshman data to the surveys administered in later college years. The identifier consisted of four items: the day of the month on which the student was born, the first two letters of the student's first name, the first two letters of the students mother's name, and the last two digits of the student's social security number. Similar identifiers have been used in previous studies to link longitudinal survey data (18). Ninety-five percent of the freshmen provided a self-generated identifier.

Data entry and checking was performed by an outside vendor, and data description and analysis was performed with SAS. This report is based on the 1669 students at four-year schools who returned useable surveys and were under the legal drinking age of 21.

THE SAMPLE

The sample is representative of freshmen at the fourteen participating institutions. There are more women (67.7%) than men (32.3%), in part due to the inclusion of two all women's institutions with high response rates. Most students are 18 years old or younger (75.0%). Relatively few members of minority groups were included in the sample - 6.2% of the students were Asian, 2.5% Black, and 3.5 Hispanic. 46.7% of the students were Roman Catholics, 20.1% Protestants, and 11.3 Jewish. Most students resided in college dormitories (90.1%). Almost half held part-time jobs (43.9%).

In order to examine how representative the present sample of college freshmen is of the population of college students in the U.S., several basic drinking measures from the latest figures from the Monitoring the Future surveys were examined. The frequency of drinking in the past year and the past month, as well as the frequency of recent heavy drinking, are very similar for our sample and the general college population (Table 2).

THE FINDINGS

COLLEGE DRINKING

Alcohol Use

Almost all freshmen drink alcoholic beverages. Only 7.6% of the men and 12.7% of the women had not had more than two or three drinks in their lives.

Most of the freshmen are current drinkers; 79.8% of the men and 70% of the women drank some alcohol in the past thirty days. 53.4% of the men and 39.2% of the women drank in the past week. Only 9.5% of the men and 14.6% of the women had not consumed alcohol in the past year.

Frequency of Drinking (Table 3)

Many freshmen were "regular" drinkers. 37.4% of the men and 22.5% of the women drank alcoholic beverages more often than once a week. In addition, 20.2% of the men and 8.8% of the women drank more often than twice a week.

Usual Quantity (Table 4)

Many freshmen drink large quantities of alcohol. About half of the men (47.9%) and a quarter of the women (21.2%) usually have five or more drinks in a row on a single occasion; and 60.9% of the men and 37.8% of the women usually have four or more drinks in a row.

In addition, 57.4% of the men and 35.5% of the women, report

having five or more drinks in a row on at least one occasion in the past two weeks. These students are the "binge" drinkers and will be described later at length.

Drunkenness (Table 5)

Slightly fewer than half the students were intoxicated at least once in the past thirty days and about a quarter at least twice (i.e. "losing control of your physical coordination, becoming very unsteady, dizzy or sick to your stomach"). 47.9% of the men and 36.7% of the women were drunk at least once and 26.9% of the men and 19.4% of the women were drunk two or more times in the past thirty days.

Reasons for Drinking (Table 6)

Students were asked to indicate why they drank. Three reasons were cited most frequently as important. Half of the students who drank did so to relax (52.9% of the men and 48.9% of the women). Slightly fewer drank to feel less tense in social situations (40.2% of the men and 37.0% of the women).

Over one out of three freshmen indicated that drinking to get drunk was an important reason for them (39.4% of the men and 33.5% of the women).

Where Drinking Takes Place (Table 7)

Students were asked where they drank alcoholic beverages. The primary settings in which they sometimes drank were private:

* 69.1% of the men and 66.9% of the women sometimes drank at a friend's residence;
* 66.1% of the men and 53.8% of the women in a dormitory
* 43.6% of the men and 40.0% of the women in a fraternity, sorority or club

Smaller numbers of freshmen drank in public places. It is noteworthy to indicate, however, that 27.2% of the men and 18.4% of the women (all under the legal drinking age of twenty-one) drank in a bar. It is also important to note that 17.9% of the men and 12.9% of the women drank in a car. (Table 5)

Alcohol-Related Problems (Table 8)

Freshmen reported experiencing a number of problems associated with alcohol use during the past year. Most frequent problems encountered "often" or "sometimes" were hangovers (39.3% of the men and 29.2% of the women), doing something one regrets (28.2% of the men and 27.2% of the women): engaging in unplanned sexual activity (22.9% of the men and 14.4% of the women), and forgetting where one was or what one did (18.9% of the men and 14.6% of the women).

Indicators of Alcohol Problems (Table 9)

The CAGE questions from the Minnesota Alcoholism Screening Test have been often used as indicators of alcoholism or alcohol problems. These four questions are considered a useful screening device.

* 33.9% of the men and 21.4% of the women indicated that they had ever felt the need to cut down on their drinking
* 21.8% of the men and 21.7% of the women ever felt guilty about their drinking
* 18.1% of the men and 14.9% of the women ever became annoyed at criticism of their drinking
* 1.6% of the men and 0.4% of the women indicated that they ever needed a drink first thing in the morning to get going

In all, 43.2% of the men and 32.8% of the women gave at least one positive response to the CAGE questions; and 19.4% of the men and 14.8% of the women gave two positive responses.

Self-Evaluation

In contrast to the CAGE results, relatively few freshmen indicate that they have problems with alcohol.

Only 0.4% of the men and 0.2% of the women consider themselves to be problem drinkers. In fact, only 6.3% of the men and 1.8% of the women consider themselves to be heavy or problem drinkers. Furthermore, only 3.0% of the men and 1.9% of the women think that they have a drinking problem.

USE OF OTHER SUBSTANCES

Lifetime Drug Use (Table 10)

Alcohol is by far the most widely used drug among freshmen; and marijuana stands out as the only other widely used substance. However, less than half of the freshmen have ever used this drug

(45.2% of the men and 39.8% of the women). Less than one in ten students have ever used any of the other drugs. 9.4% of the men and 5.9% of the women have ever used psychedelics - primarily LSD - 8.4% of the men and 6.0% of the women have ever used cocaine. 6.4% of the men and 5.9% of the women have ever used opiates. 2.8% of the men and 4.7% of the women have ever used tranquilizers. Each of the other drugs - PCP, barbiturates, crack, and steroids - have ever been used by fewer than two percent of male and female freshmen.

Annual Drug Use (Table 11)

Smaller numbers of students used illicit drugs in the past year. About one out of three students used marijuana (34.6% of the men and 28.3% of the women). 6.0% of the men and 2.6% of the women used psychedelics and 3.7% of the men and 2.2% of the women used cocaine. All of the other drugs had been used in the past year by less than three percent of students of both sexes.

Most of the students who used these drugs did so infrequently. For example, only 12.9% of male and 7.8% of female students used marijuana more than once a month, and less than one percent of students used cocaine monthly.

Smoking

One of five women (19.2%) and one of eight men (12.1%) were current smokers.

Many students had apparently quit smoking, since one of four

women (27.0%) and one of five men (21.6%) had smoked at least 100 cigarettes in their lives.

CHANGES IN SUBSTANCE USE OVER TWO DECADES

Changes in Alcohol Use (Table 12)

It was possible to compare the drinking patterns of freshmen in the present sample with those from a study of 34 colleges conducted in 1977 by Wechsler and McFadden. That study included eight of the schools in the present survey. Freshmen were included in the sample of over 7000 students in 1977.

Questions on the frequency and quantity of alcohol consumption were used to generate the drinking typologies used by Wechsler and McFadden in their 1977 study (4). The six categories were defined as follows:

1) abstainer - anyone who never had a drink or had not had a drink in the past year
2) infrequent light - those whose usual quantity was two or fewer drinks and who drank five or fewer times a month, or those whose usual quantity was three drinks and who drank less than once a month
3) frequent light - those whose usual quantity was two or fewer drinks and who drank on six or more occasions per month;
4) intermediate - those whose usual quantity was three drinks and who drank more than once per month, or four

drinks between three and nine times per month, or five drinks three to five times per month;

5) infrequent heavy - those whose usual quantity was four or five drinks and who drank one to two times per month or less;

6) frequent heavy - those whose usual quantity was four drinks and who drank ten or more times per month, or those who usually drank five drinks and drank six or more times per month.

The findings indicate that heavy involvement with alcohol continues unchanged from 1977.

* The proportion of frequent heavy drinkers is almost identical in the two time periods (About 31% of men and 13% of women)

* There are more abstainers in the present sample than in 1977. (About 12% versus 3%)

* The frequent light drinker of 1977 has almost disappeared in the present sample (from approximately 15% in 1977 to 1% in 1990)

Changes in Other Substance Use (Table 13)

The continuing high rates of heavy drinking stand in stark contrast to marked decreases in the use of other substances.

* Half as many freshmen used marijuana in 1989 as did in 1977. (35% versus 64% among men and 28% versus 55% among women)

* The number of students using cocaine has decreased even more sharply (4% versus 14% in men and 2% versus 8% in women).

* Half as many students smoke cigarettes today compared to 1977 (12% versus 23% among men, and 19% versus 33% among women)

AUTOMOBILE SAFETY

Driving

Nearly all students had driver's licenses (95.4% of the men, and 89.2% of the women). Because of their age, most held the license for two years or less (68.8% of the men and 79.9% of the women). Less than one quarter of the students had a car at school (25.0% of the men and 20.3% of the women).

Very few students ride a motorcycle at college (3.9% of the men and 0.9% of the women).

The Role of Alcohol

-- Awareness of the Problem --

Most of the students know that alcohol-related automobile accidents are a leading cause of death among young people (94.8%

of the men and 95.8% of the women).

-- Driving After Drinking --

However, in the past year students, especially males, drove after drinking:

* 55.0% of the men and 33.5% of the women drove after having one or two drinks
* 29.9% of the men and 10.4% of the women drove after three or four drinks
* 18.7% of the men and 3.8% of the women drove after five or more drinks

-- Appropriateness of Drinking Before Driving --

Most freshmen do not think it is appropriate to drink at all before driving a car. 78.0% of the men and 92.5% of the women do not think it is appropriate to drink at all before driving; 99.5% of the women and 96.6% of the men do not think it is appropriate to have more than two drinks before driving.

-- Riding with Drinking Driver --

In addition, a third of the freshmen (38.4% of the men and 32.6% of the women) have ever ridden in a car with a driver who was high or drunk.

Two out of three students of both sexes have ever refused to ride with a driver who was high or drunk (64.5% of men and 68.3% of women).

-- Designated Driver (Table 14) --

Most of the students select a non-drinking designated driver when they drink. 41.1% of the men and 54.4% of the women do it each time that they drink, and 76.2% of the men and 84.3% of the women do it most of the time or all of the time.

-- Chances of Being Stopped (Table 15) --

Only one out of three freshmen (28.7% of the men and 37.5% of the women) think that if you drive when you are drunk or high there would be a very good chance of getting stopped by the police. One of four men (26.2%) and one of five women (19.1%) think there would be little or no chance of getting stopped.

Other Unsafe Driving Practices

-- Speeding --

During the past year nearly all students have driven much faster than the speed limit (86.9% of men and 74.7% of women).

Some have gotten a speeding ticket. 31.7% of men and 15.8% of women received a speeding ticket in the past year. In addition, 17.0% of the men and 6.2% of the women have drag raced.

-- Seat Belt Use (Table 16) --

Almost half of the freshmen (42.9% of the men and 50.4% of the women) always use a seat belt as a driver or passenger in a car. In addition, 61.0% of the men and 72.4% of the women use a seat belt most or all of the time.

-- Other Unsafe Driving Behavior --

In the past year, many students have gone through a stop sign or a red light. 49.6% of the men and 42.5% of the women have gone through a stop sign. 42.3% of the men and 37.5% of the women have gone through a red light.

-- Automobile Accidents --

In the past year, 28.9% of the men and 19.0% of the women have had an automobile accident.

-- Importance of Safety Features in a Car (Table 17) --

Buying a car, most students would look at cost as the most important factor (53.4% of the men and 53.6% of the women). Fewer freshmen would look at safety, although more women than men would do so (28.6% of women versus 11.3% of men). Men would look at power and speed as more important (14.5% of men versus 2.7% of women).

CORRELATES OF DRINKING IN COLLEGE

High School Drinking

Most of these students did not begin to drink in college. Indeed most brought with them patterns of drinking established in high school.

-- High School Quantity (Table 18) --

Two out of five of the male freshmen (42.2%) usually drank five or more drinks on a single occasion in high school. Only one out of seven female freshmen (14.6%) drank this much. Half of the men (53.4%) and one of three women (29.8%) typically drank four or more drinks in high school.

-- High School Frequency (Table 19) --

One of three men (32.2%) and one of six women (17.3%) drank alcohol weekly while in high school.

-- Change in Drinking Since High School (Table 20) --

Half the students (53.2% of the men and 45.9% of the women) were drinking more in college than in high school. A fifth (18.4% of the men and 16.4% of the women) thought they were drinking a lot more now. A sixth reported drinking less (16.1% of the men and 16.5% of the women).

-- Drinking Problems in High School (Table 21) --

Most freshmen did not have a major or moderate alcohol problem in high school. Less than two percent indicated a major problem, and only 7.1% of the men and 4.1% of the women indicated having a moderate or more severe problem. However, one of five students considered that they had a minor or more severe problem (20.4% of the men and 13.5% of the women).

-- Parental Drinking Problems --

In addition to bringing a drinking history to college, some students also brought experience with parental drinking and drug problems. 14.0% of the men and 16.6% of the women reported that a parent had an alcohol problem.

The Social Nature of College Drinking

-- Drinking of Best Friends --

Most students reported that most of their best friends drank (73.5% of the men and 62.5% of the women). Furthermore, many reported that most of their best friends drink five or more drinks in a row (41.6% of the men and 21.7% of the women).

-- Peer Pressure to Drink --

However, drinking to keep friends company was considered an important reason for drinking by relatively few students (22.6% of the men and 17.3% of the women). Similarly, few freshmen indicated that they drank more than they would like because of the encouragement of others (14.6% of the men and 10.4% of the women). The majority of students also indicated that they sometimes or more often turned down a drink offered to them (80.4% of the men and 88.1% of the women).

-- College Freshmen's Rules for Heavy Drinking (Table 22) --

Most freshmen consider it appropriate to drink enough to get drunk or high in certain social situations.

* 78.9% of the men and 63.2% of the women think it is appropriate to drink this heavily at a party.
* 72.3% of the men and 59.4% of the women think it is appropriate to drink this heavily with friends.

In contrast, most freshmen think it is not appropriate to drink any alcohol at all when alone at home.

* 69.0% of the men and 75.9% of the women think it is not appropriate to drink even one or two drinks alone at home.

Most freshmen think it is not appropriate to drink heavily in one social situation - on a date.

* 85.1% of the men and 90.1% of the women do not think it is appropriate to drink more than one or two drinks on a date.

THE "BINGE" DRINKERS (Table 23)

For college administrators, as well as public health and public safety officials, a major alcohol related problem stems from heavy drinking episodes that put the drinker and persons around him or her at increased risk of injury. For this cohort of students the consumption of five or more drinks in a row in the past two weeks is used as a means of defining this higher risk population. These students are designated "binge" drinkers and compared with "other drinkers" who did not consume five or more drinks in a row in the past two weeks.

Over half (57.4%) of the men and one third (35.5%) of the women are "binge" drinkers.

Frequency of Drinking (Table 24)

Binge drinking is associated with frequency of drinking. Most "binge" drinkers are "regular" drinkers. 60.9% of the men and 54.0% of the women who are "binge" drinkers drink more often than once a week.

"Regular" Drinkers (Table 25)

Conversely, the "binge" drinkers constitute the vast majority of the regular drinkers. Of freshmen who drink more often than once a week, 92.0% of the men and 82.3% of the women are "binge" drinkers. In contrast, only 42.0% of the male and 25.2% of the female non-regular drinkers are "binge" drinkers.

Usual Quantity (Table 26)

The measure used to classify "binge" drinkers appears to be indicative of their usual drinking style. Having five or more drinks in a row in the past two weeks is associated with usually consuming five or more drinks. About three quarters of the men (74.4%) and half the women (51.2%) who were "binge" drinkers indicated that they usually drank five or more drinks when they drank; and over 80% of "binge" drinkers of both sexes usually drank four or more drinks.

Drunkenness (Table 27)

Three quarters of the "binge" drinkers had been drunk in the past month, and about half had been drunk two times or more.

Beer as Beverage of Choice (Table 28)

"Binge" drinkers were more likely to select beer as their beverage of choice than were other drinkers. About three quarters of the male (74.6%) and half of the female (45.3%) "binge" drinkers drank beer.

Frequency of Beer Drinking (Table 29)

"Binge" drinkers drank beer more frequently. About three quarters of the male (70.7%) and half of the female (51.0%) "binge" drinkers drank beer on five or more days in the past month compared to 20% and 11% of the other drinkers.

Drinking to Get Drunk (Table 30)

"Binge" drinkers drank to get drunk. Half of the "binge" drinkers of both sexes (51.8% of the men and 53.7% of the women) drink to get drunk compared to about one-fifth of the other drinkers (18.8% of the men and 20.2% of the women).

Drinking Location (Table 31)

"Binge" drinkers consumed alcohol in non-public locations. Over three-quarters drank at friends' residences or in dormitories and over half drank in fraternities, sororities or clubs. "Binge" drinkers drank at all sites more frequently than other drinkers, with the exception of their parental home. (Table 20) It is noteworthy that a third of the male (33.0%) and a quarter of the female (25.8%) "binge" drinkers drank in bars,

and about a quarter drank in cars (25.3% of the men and 23.2% of the women).

Alcohol-Related Problems (Table 32)

"Binge" drinkers experienced a variety of problems more frequently than other drinkers. About half of "binge" drinkers of both sexes experienced hangovers and did something they regretted. Over a quarter engaged in unplanned sexual activity, and forgot where they were or what they did. Depending on the specific problem "binge" drinkers are two to five times as likely to be affected as other drinkers.

Male "binge" drinkers more frequently damaged property (17.8%), got into physical fights (10.1%) and got into trouble with police (9.1%).

Indication of Drinking Problems (Table 33)

About half of the "binge" drinkers provided one or more positive responses to the CAGE questions of the Michigan Alcoholism Screening Test (56.9% of the men and 50.5% of the women). A quarter had two or more positive items (29.0% of the men and 24.9% of the women).

Self-Rating of Drinking (Table 34)

Few "binge" drinkers, indicated that they were problem drinkers. Only four freshmen "binge" drinkers rated themselves as "problem" drinkers. In all, only 11.0% of the male and 5.2%

of the female "binge" drinkers saw themselves as heavy or problem drinkers. More of the "binge" drinkers viewed themselves as "infrequent" drinkers (9.6% of the men and 13.0% of the women). An additional 27.9% of the male and 35.5% of the female "binge" drinkers viewed themselves as "light" drinkers. Half of the "binge" drinkers (50.8% of the men and 46.4% of the women) rated themselves as "moderate" drinkers.

Furthermore, only 15 male (5.0%) and 14 female (3.6%) "binge" drinkers indicated that they had a drinking problem.

Marijuana Use and Smoking (Table 35)

There is a strong association between marijuana use, smoking of cigarettes, and "binge" drinking.

While half of "binge" drinkers of both sexes used marijuana in the past year (47.6% of men and 51.2% of women), only a fifth of other drinkers (22.0% of men and 19.9% of women), and only one of 185 male and female abstainers did so.

Similarly, twice as many female "binge" drinkers smoked compared to female other drinkers (30.8% versus 15.8%) and only 2.1% of female abstainers smoked. Among men three times as many "binge" drinkers smoked compared to "non-binge" drinkers (17.7% versus 6.1%) while no male abstainers smoked.

Unsafe Driving (Table 36)

"Binge" drinkers in contrast to other drinkers more frequently drove after drinking and rode with drinking drivers.

Most "binge" drinkers (70.5% of the men and 58.4% of the women) drove after drinking one or two drinks. Over a quarter (29.5%) of the male "binge" drinkers drove after having five or more drinks. In addition, over half of male and female "binge" drinkers (53%) rode with high or intoxicated drivers.

In terms of most other unsafe driving behaviors, "binge" drinkers, particularly men, were more likely to drag race. Female "binge" drinkers were more likely to get a speeding ticket and have an automobile accident than female other drinkers. (Table 23)

FACTORS ASSOCIATED WITH "BINGE" DRINKING

Usual Quantity in High School (Table 37, 38)

Drinking patterns during the freshmen year tend to resemble high school drinking. Two thirds of male (64.5%) and one-third of female (32.9%) "binge" drinkers had five or more drinks in a row on a typical drinking occasion. Three of four male (76.7%) and three of five female (59.0%) "binge" drinkers typically consumed four or more drinks.

Looked at from another perspective, drinking quantity in high school is correlated to drinking pattern during the freshman college year. Only 17.6% of the men and 8.6% of the women who usually had less than one drink in high school were college "binge" drinkers. In contrast, 85.6% of the men and 77.8% of the women who usually drank five or more drinks in high school were college "binge" drinkers.

High School Frequency (Table 39)

"Binge" drinkers drank more often in high school than other drinkers. 47.3% of the male and 35.9% of the female "binge" drinkers drank once a week or more often in high school. In contrast, only 15.8% of the male and 9.5% of the female other drinkers drank that frequently.

Drinking Problems in High School (Table 40)

About one-tenth of freshmen "binge" drinkers indicated that they had a major or moderate drinking problem in high school (11.6% of the men and 8.8% of the women). In comparison, only about 2% of the other drinkers indicated they had such a problem in high school.

When all degrees of drinking problems are included by also considering minor problems 30.1% of the male and 25.8% of the female "binge" drinkers report having had a problem in high school compared to 9.4% of the male and 8.6% of the female other drinkers.

Parental Drinking Problem

Male "binge" drinkers more frequently report having a parent with a drinking problem than do male other drinkers (17.7% versus 7.2%). There are no differences between female "binge" and other drinkers in parental drinking problems (19.4% versus 15.6%).

Drinking of Best Friends (Table 41, 42)

"Binge" drinkers primarily associate with drinkers. 88.9% of male and 85.1% of female "binge" drinkers report that all or most of their best friends drink compared to 56.5% of the male and 56.6% of the female other drinkers.

Furthermore, 61.9% of male and 45.1% female "binge" drinkers report that all or most of their best friends drink five or more drinks in a row compared to 17.5% of male and 9.7% of female other drinkers.

Peer Pressure to Drink (Table 43)

"Binge" drinkers did not consider keeping their friends company a particularly important reason for drinking. Approximately the same proportion of "binge" drinkers 21.9% of men and 18.1% of female "binge" drinkers, thought this reason to be important, compared to 23.8% of male and 16.7% of female other drinkers).

Most "binge" drinkers did not indicate that they sometimes drank more than they would like to because of the encouragement of others. Only 16.1% of male and 13.4% of female "binge" drinkers drank more than they would like, as did 12.2% of male and 8.4% of female other drinkers.

However, "binge" drinkers did not turn down drinks offered to them as often as other drinkers did. Only 13.1% of male and 14.2% of female "binge" drinkers often or always turned down offered drinks compared to 39.0% of male and 45.8% of female

other drinkers.

"Binge" Drinkers' Rules for Heavy Drinking (Table 44)

With few exceptions "binge" drinkers consider it appropriate to drink enough to get high or drunk in most situations.

* More than seven out of eight "binge" drinkers think that it is appropriate to drink this much at a party or with friends. In contrast, slightly more than half of other drinkers share this view
* Half of the "binge" drinkers consider it appropriate to drink at a bar or pub and at a concert or sports event. In contrast, about one out of four other drinkers share this view

Such heavy drinking is not condoned in three specific situations.

* Freshmen "binge" and other drinkers do not think it is appropriate to drink before driving
* Only one out of five "binge" drinkers think it is appropriate to drink heavily on a date (22.4% of men and 17.6% of women). Fewer other drinkers share this view (5.2% of men and 2.0% of women)
* All freshmen consider it inappropriate to drink heavily when alone. In fact, three out of four men and women who are "binge" and other drinkers do not think it is appropriate to drink at all alone - even only one or two drinks.

THE DEAN'S SURVEY

Seventy-three Deans of students at Massachusetts colleges completed a questionnaire containing a series of questions on problems in their student population in the winter of 1990. This comprised a response rate of 72.7% of all colleges in the state.

Major College Problems (Table 45)

Deans were provided with a listing of problems and were asked to indicate those which were major or moderate at their institution. The problems cited most frequently after academics and school adjustment were drunkenness off campus (61.5%) and drunkenness on campus (47.9%).

Relationship of Alcohol Use to College Problems (Table 46)

The deans then were asked how often they believed a list of problems are related to the use and abuse of alcohol and other drugs. The problems cited most often by the Deans as being related frequently were violence (54.8%), date rape (47.1%), problems with the police (44.4%), and vandalism (42.5%).

College Alcohol Control Policies (Table 47)

Seventy-two of the 73 schools had stated policies on alcohol use at the time of the survey in the winter of 1990. The majority of schools had guidelines for alcohol-related events (83.6%); ban kegs on campus (69.8%); required alternative non-alcoholic beverages at public functions at which alcohol is

served (69.8%); required registration of parties (61.5%); and a ban on publicizing the availability of alcohol in the advertising of events (60.3%). Few schools had policies restricting the sponsorship of campus events (19.5%) or advertising and promotion (42.6%) by the alcoholic beverage industry.

Available Resources (Table 48)

The majority of schools do have alcohol/drug education programs (89.0%). Many also offer counseling specifically for students who are problem drinkers (69.4%). They also train tutors and proctors in spotting problem behaviors and referring students to treatment (64.3%). 61.1% have an orientation program for new students that deals with the subject of alcohol abuse. In addition 56.7% have a peer leader program and 54.2% have a group for adult children of alcoholics.

Few schools have access to external funds for alcohol education programming (16.9%) Less than a third offer an undergraduate course on the subject of alcohol and/or substance abuse (30.1%). Only 37.0% of the institutions have AL ANON group meetings on campus and 42.5% have AA group meetings on their campuses.

Since the completion of the Dean's survey a report of the Carnegie Foundation for the advancement of teaching (13) has confirmed the Massachusetts findings. A national survey of college presidents found that substance abuse - primarily alcohol - was the most frequently cited problem on campus.

SUMMARY

The results of a survey of 1669 freshmen at fourteen colleges in Massachusetts indicate that drinking is a popular activity among these students

* Nearly all freshmen drink alcoholic beverages.
* A third of the men and a quarter of the women drink more than once a week.

A sizable proportion of the students are heavily involved with alcohol.

* Half of the men and a fifth of the women usually have five or more drinks in a row on a single occasion.
* Half of the men and a third of the women were drunk at lest once in the past month.
* A third of the freshmen drink to get drunk.

The legal drinking age has some relationship to the nature of drinking among the under age freshmen.

* Most drinking occurs in private settings: friends' residences, dormitories and fraternities, sororities or clubs.
* However, some drinking occurs in violation of minimum drinking age laws - a quarter of the freshmen drink in bars.

Students manifest many problems related to drinking.

* One-third of the freshmen report having hangovers; and doing something they regret.
* One out of six report engaging in unplanned sexual activity after drinking.

* Two of five men and one of three women gave at least one positive response to the four CAGE questions of the Michigan Alcoholism Screening Test - and one of six gave two positive responses

In contrast, almost no students viewed themselves as problem drinkers.

* Only 37 of the 1669 freshmen indicated that they had a drinking problem.

* Only six percent of the men and two percent of the women rated themselves as heavy or problem drinkers.

Illicit drug use and smoking were less common than drinking among the freshmen.

* Half of the men and two-fifths of the women had ever used marijuana.

* One out of three freshmen had used marijuana in the past year. Most used it in frequently.

* Three percent of the freshmen used cocaine in the past year.

* One of five women and one of eight men were current smokers.

Compared to usage patterns in 1977 at many of the same schools, current heavy use of alcohol remained constant while only half as many freshmen used marijuana or cocaine or smoked cigarettes.

* During both 1977 and 1990 the same proportion of freshmen were frequent heavy drinkers - 31% of the men and 13% of the women.

* The only change in drinking patterns was an increase in the proportion of abstainers (from 3% to 12%) and the virtual disappearance of frequent-light drinkers (from 15% to 1%).

* In contrast, half as many freshmen use marijuana now compared to 1977. (35% versus 64% among men and 28% versus 55% among women)

* Cocaine use is also less widespread than it was in 1977 (4% versus 14% among men and 2% versus 8% among women)

* Smoking is also half as frequent (12% versus 23% among men and 19% versus 33% among women).

Automobile safety is a major problem among college freshmen.

* Many drive after one or two drinks (55.0% of men and 33.5% of women) and some after five or more drinks (18.7% of men and 3.8% of women).

* A third of the freshmen have ridden in a car with a driver who was high or drunk.

* Nearly all students have driven much faster than the speed limit and a third of the men and a sixth of the women have gotten a speeding ticket in the past year. One sixth of the men have drag raced.

* Half of the students do not always use a seat belt in a car.

* Half have gone through a stop sign and two in five have gone through a red light.

* Three in ten men and two in ten women had an automobile accident in the past year.

Drinking does not start in college. Heavy drinking patterns begin in high school.

* Two of five men and one in seven women usually drank five or more drinks in a row when in high school.

* One in three men and one in six women drank alcohol at least once a week in high school.

Drinking, however, increases in college.

* Half of the freshmen increased their drinking in college, while only one in six decreased it.

College drinking is a highly social activity.

* Most students report that their friends drink.
* Most students think it is appropriate to drink enough to get high or drunk at a party or with friends.
* Most students think it is not appropriate to drink any alcohol - even one or two drinks - alone at home.

"Binge" drinking is the typical form of college drinking today.

* Over half of the men and one-third on the women are "binge" drinkers - as measured by having had five drinks in a row on one or more occasions in the past two weeks.
* Ninety percent of men and eighty percent of women who drink more than once a week are "binge" drinkers.

"Binge" drinkers are heavily involved with alcohol.

* Three in four have been drunk in the past month, and one in two at least twice.
* Half of the "binge" drinkers of both sexes drink to get drunk.

"Binge" drinker are two to five times more likely to experience alcohol related problems than are other drinkers, including the more serious problems.

* One in four engaged in unplanned sexual activity.
* One in six "binge" drinkers damaged property.
* Ten percent of male "binge" drinkers got into physical fights or into trouble with police.
* Half of "binge" drinkers of both sexes gave at least one positive response to the CAGE questions and a quarter gave two positive responses.

"Binge" drinkers were more likely to use marijuana or smoke than were other drinkers or abstainers.

* Half of the "binge" drinkers used marijuana in the past year compared to a fifth of other drinkers and virtually no abstainers.

* Among women, 30.8% of the "binge" drinkers smoked compared to 15.8% percent of the other drinkers and 2.1% of the abstainers. Among men, the rates were 17.7%, 6.1% and 0.% respectively.

"Binge" drinkers have very poor automobile safety records.

* Most "binge" drinkers (seven in ten men and six in ten women) drove after drinking; and three in ten men drove after having five or more drinks.

* Half of the "binge" drinkers drove with high or intoxicated drivers.

* One in five male "binge" drinkers drag raced.

* One in four female "binge" drinkers got a speeding ticket or had an automobile accident in the past year.

"Binge" drinking begins in high school.

* Four of five students who usually had five or more drinks when they were in high school were "binge" drinkers in college.

* "Binge" drinkers in college were three times as likely to drink at least once a week in high school.

"Binge" drinking is a highly social activity.

* More than half the "binge" drinkers reported that most of their friends drank five or more drinks in a row.

* "Binge" drinkers were four times as likely to have such friends.

* More than seven out of eight "binge" drinkers think it is appropriate to drink enough to get high or drunk at a party or with friends.

<u>According to college administrators at seventy-three Massachusetts colleges, student alcohol use presents a serious problem for their institutions.</u>

* Drunkenness off campus and drunkenness on campus were cited as two of the top four college problems.

* Violence, date rape, problems with police, and vandalism were cited by half the administrators as related to alcohol abuse.

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Table 1

THE STUDY SAMPLE

School	Sample Size
Amherst[a]	143
Babson[a]	93
Boston College[a]	117
Brandeis[a]	124
Boston University[a]	127
Fitchburg State	100
Framingham State	86
Mount Holyoke[a]	157
North Adams State	101
Salem State	98
Smith	162
Southeastern Mass. Univ.[a]	106
Tufts[a]	132
Univ. of Mass. (Amherst)	123
TOTAL	1,669

[a] = surveyed in 1977

Table 2

COLLEGE FRESHMEN SAMPLE COMPARED TO COLLEGE STUDENTS IN THE MONITORING THE FUTURE SURVEY

Measure	MTF*	1989
Drank in the past year	88.3	86.9
Drank in the past 30 days	72.0	73.1
5+ drinks in the past 2 weeks	40.0	42.0

* Monitoring the Future, Lloyd Johnston, personal communication

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Table 3

FREQUENCY OF DRINKING IN PAST THIRTY DAYS

	Men	Women
No drinking	20.2%	30.0%
One to two times	17.8%	24.3%
Three to five times	24.5%	23.2%
Six to nine times	17.2%	13.7%
Ten or more times	20.2%	8.8%

Table 4

USUAL QUANTITY CONSUMED

	Men	Women
No drinking	7.6%	12.7%
One drink or less	12.3%	19.1%
Two drinks	8.2%	13.7%
Three drinks	11.0%	16.7%
Four drinks	13.0%	16.6%
Five or more drinks	47.9%	21.2%

Table 5

DRUNKENNESS IN PAST THIRTY DAYS

	Men	Women
Not drunk in past 30 days	52.1%	63.3%
Once	21.0%	17.3%
Two or three times	15.5%	13.7%
Four or more times	11.4%	5.7%

Table 6

REASONS FOR DRINKING*

	Men	Women
To relax	52.9%	48.9%
To feel less tense in social situations	40.2%	37.0%
To get drunk	39.4%	33.5%
To keep friends company	22.8%	17.2%
To take mind off problems	19.2%	19.6%

* Rated as very important or important

Table 7

WHERE DRINKING TAKES PLACE*

	Men	Women
Friend's residence	69.1%	66.9%
Dormitory	66.1%	53.8%
Fraternity, sorority or club	43.6%	40.0%
Athletic event or concert	29.7%	19.5%
Bar or pub	27.2%	18.4%
Home with parents	20.2%	22.8%
Own apartment or house	22.1%	20.3%
In car	17.9%	12.9%

* Often or sometimes

Table 8

ALCOHOL RELATED PROBLEMS

	Men	Women
Hangover	39.2%	29.2%
Doing something you regret	28.2%	27.2%
Unplanned sexual activity	22.9%	14.4%
Forget what you did	18.9%	14.6%
Miss classes	13.3%	10.5%
Get behind in school work	9.6%	6.8%
Damage property	11.4%	1.0%
Have arguments with friends	10.3%	7.5%
Get into physical fights	6.6%	1.2%
Get into trouble with police	5.6%	1.4%
Get ticket for moving violation	0.7%	0.2%
Have automobile accident	0.6%	0.3%

Table 9

INDICATIONS OF ALCOHOL PROBLEMS: CAGE QUESTIONS

	Men	Women
Felt need to cut down drinking	33.9%	21.4%
Felt guilty about drinking	21.8%	21.7%
Annoyed at criticism of drinking	18.1%	14.9%
Needed an "eye opener"	1.6%	0.4%
One or more positive items	43.2%	32.8%
Two or more positive items	19.4%	14.8%

Table 10

LIFETIME USE OF ILLICIT DRUGS

	Men	Women
Marijuana	45.2%	39.8%
Cocaine	8.4%	6.0%
Crack	0.6%	0.4%
Barbiturates	1.5%	1.6%
Tranquilizers	2.8%	4.7%
Opiates	6.4%	5.9%
Psychedelics	9.4%	5.9%
PCP	1.5%	0.5%
Steroids	1.5%	0.4%

Table 11

ANNUAL USE OF ILLICIT DRUGS

	Men	Women
Marijuana	34.6%	28.3%
Cocaine	3.7%	2.2%
Crack	0.2%	0.1%
Barbiturates	0.4%	0.5%
Tranquilizers	1.3%	1.6%
Opiates	2.1%	2.6%
Psychedelics	6.0%	2.6%
PCP	0.2%	0.2%
Steroids	1.0%	0.2%

Table 12

COLLEGE DRINKING IN TWO DECADES

	Men		Women	
	1977	**1990**	**1977**	**1990**
Abstainers	3%	10%	4%	15%
Infrequent/light	18%	18%	26%	32%
Frequent/light	14%	2%	16%	1%
Intermediate	31%	29%	38%	32%
Infrequent/heavy	4%	10%	3%	6%
Frequent/heavy	30%	32%	13%	14%

Table 13

ANNUAL SUBSTANCE USE IN TWO DECADES

	Men		Women	
	1977*	**1990****	**1977**	**1990**
Cigarettes	23%	12%	33%	19%
Marijuana	64%	35%	55%	28%
Cocaine	14%	4%	8%	2%
Alcohol	97%	90%	96%	85%
Frequent Heavy Drinker	30%	32%	13%	14%

Table 14

USE OF DESIGNATED DRIVER

	Men	Women
Never	9.8%	5.0%
Not very often	13.9%	10.7%
Most of the time	35.1%	29.9%
All of the time	41.1%	54.4%

Table 15

CHANCES OF BEING STOPPED BY POLICE WHEN DRUNK OR HIGH

	Men	Women
No chance at all	3.0%	6.0%
Little chance	23.2%	13.1%
Some chance	45.1%	43.4%
Very good chance	28.7%	37.5%

Table 16

SEAT BELT USE

	Men	Women
Never	16.2%	8.3%
Some of the time	22.9%	19.4%
Most of the time	18.1%	22.0%
Always	42.9%	50.4%

Table 17

MOST IMPORTANT FEATURE WHEN BUYING A CAR

	Men	Women
Cost	53.4%	53.6%
How car looks	20.8%	15.0%
Safety factors	11.3%	28.6%
Power and speed	14.5%	2.7%

Table 18

USUAL QUANTITY IN HIGH SCHOOL

	Men	Women
No drinking	7.8%	12.8%
One drink or less	16.7%	22.8%
Two drinks	10.8%	15.5%
Three drinks	11.4%	19.1%
Four drinks	11.2%	15.2%
Five or more drinks	42.2%	14.6%

Table 19

FREQUENCY OF DRINKING IN HIGH SCHOOL

	Men	Women
No drinking	7.7%	12.7%
Less than once a month	28.4%	37.8%
1 - 3 times a month	31.6%	32.1%
Once or twice a week	25.0%	15.1%
3 or more times a week	7.2%	2.2%

Table 20

CHANGE IN DRINKING SINCE HIGH SCHOOL

	Men	Women
Don't drink	10.7%	16.7%
Much more now	18.4%	16.4%
A little more now	34.8%	29.5%
Same	19.9%	20.9%
A little less now	9.9%	9.6%
Much less now	6.2%	6.9%

Table 21

DRINKING PROBLEMS IN HIGH SCHOOL

	Men	Women
Not a problem	79.6%	86.5%
Minor problem	13.3%	9.4%
Moderate problem	5.4%	3.0%
Major problem	1.7%	1.1%

Table 22

SITUATIONS IN WHICH IT IS APPROPRIATE TO GET "HIGH" OR "DRUNK"

	Men	Women
At party	78.9%	63.2%
With friends	72.3%	59.4%
In bar or pub	48.1%	34.7%
At concert/sports event	39.5%	24.3%
On date	14.9%	9.9%
Alone at home	7.9%	5.2%
Before driving a car	3.4%	0.5%

Table 23

ABSTAINERS*, "BINGE" AND OTHER DRINKERS

	Men	Women
Abstainers	7.7%	12.8%
Other Drinkers	34.9%	51.7%
"Binge" Drinkers	57.4%	35.5%

* No drinks in the past year

Table 24

FREQUENCY OF DRINKING OF "BINGE" AND OTHER DRINKERS

	"Binge" Drinkers		Other Drinkers	
	Men	**Women**	**Men**	**Women**
Not in Past Month	0.0%	0.0%	35.8%	33.6%
One to Two Times	9.6%	12.3%	32.4%	36.2%
Three to Five Times	29.5%	33.7%	22.9%	22.4%
More than Weekly	60.9%	54.0%	8.9%	7.8%

Table 25

"BINGE" DRINKING BY FREQUENCY OF DRINKING

	"Binge" Drinkers		Other Drinkers	
	Men	**Women**	**Men**	**Women**
Regular Drinkers	92.0%	82.3%	8.0%	17.3%
Non-regular Drinkers	42.0%	25.2%	58.0%	74.8%

* More frequently than once a week

Table 26

USUAL QUANTITY CONSUMED OF "BINGE" AND OTHER DRINKERS

	"Binge" Drinkers		Other Drinkers	
	Men	**Women**	**Men**	**Women**
One or less	1.0%	0.8%	31.6%	35.5%
Two	2.0%	5.4%	19.7%	22.6%
Three	9.0%	13.4%	16.6%	23.0%
Four	13.6%	29.2%	15.0%	12.3%
Five or more	74.4%	51.2%	17.1%	6.5%

Table 27

DRUNKENNESS OF "BINGE" AND OTHER DRINKERS

	"Binge" Drinkers		Other Drinkers	
	Men	**Women**	**Men**	**Women**
Not in Past Month	23.2%	23.4%	87.1%	80.1%
Once	30.2%	28.3%	10.6%	14.7%
Twice	26.2%	32.1%	2.2%	5.2%
Three or More Times	20.3%	16.2%	0.0%	0.0%

Table 28

BEVERAGE OF CHOICE OF "BINGE" AND OTHER DRINKERS

	"Binge" Drinkers		Other Drinkers	
	Men	**Women**	**Men**	**Women**
Beer	74.6%	45.3%	46.8%	18.9%
Wine	1.0%	4.7%	7.9%	15.0%
Liquor	8.8%	20.3%	11.6%	22.2%
No "usual" drink	15.6%	29.7%	33.7%	44.0%

Table 29

FREQUENCY OF BEER DRINKING OF "BINGE" AND OTHER DRINKERS

	"Binge" Drinkers		Other Drinkers	
	Men	**Women**	**Men**	**Women**
Once or less often	7.0%	19.8%	31.6%	55.2%
Two or four times	22.3%	29.1%	48.2%	33.7%
Five times or more	70.7%	51.0%	20.2%	11.1%

Table 30

REASONS FOR DRINKING RATED BY "BINGE" AND OTHER DRINKERS

	"Binge" Drinkers		Other Drinkers	
	Men	**Women**	**Men**	**Women**
To take my mind off problems	19.2%	28.4%	18.8%	13.7%
To feel less tense	42.3%	45.9%	36.5%	31.4%
To relax	58.4%	59.4%	43.6%	42.4%
To get drunk	51.8%	53.7%	18.8%	20.2%
To keep my friends company	21.9%	18.1%	23.8%	16.6%

Table 31

DRINKING LOCATIONS OF "BINGE" AND OTHER DRINKERS

	"Binge" Drinkers		Other Drinkers	
	Men	**Women**	**Men**	**Women**
Friend's residence	81.7%	84.5%	48.1%	55.7%
Dormitory	76.6%	71.9%	49.2%	42.2%
Fraternity, sorority or club	53.4%	57.0%	27.8%	29.1%
Car	25.3%	23.2%	5.0%	6.1%
Athletic event or concert	40.0%	32.5%	12.7%	11.0%
Bar	33.0%	25.8%	17.7%	13.7%
Home	19.7%	19.1%	21.1%	25.4%

Table 32

ALCOHOL RELATED PROBLEMS OF "BINGE" AND OTHER DRINKERS

	"Binge" Drinkers		Other Drinkers	
	Men	**Women**	**Men**	**Women**
Hangover	56.6%	55.3%	21.2%	19.4%
Do something you regret	41.6%	49.3%	13.5%	19.6%
Unplanned sexual activity	34.3%	27.5%	10.4%	9.4%
Forget what you did	28.6%	30.6%	7.8%	7.9%
Miss classes	20.5%	25.1%	5.2%	3.5%
Get behind in school work	15.5%	14.8%	2.6%	3.4%
Arguments with friends	15.8%	12.4%	4.1%	6.2%
Damage property	17.8%	2.1%	4.1%	0.5%
Physical fights	10.1%	2.3%	2.6%	0.7%
Trouble with police	9.1%	3.4%	1.6%	0.5%
Ticket for moving violation	1.0%	0.5%	0.5%	0.0%
Automobile accident	1.0%	0.8%	0.0%	0.0%

Table 33

CAGE SCORES OF "BINGE" AND OTHER DRINKERS

	"Binge" Drinkers		Other Drinkers	
	Men	**Women**	**Men**	**Women**
No positive item	43.1%	49.5%	68.3%	70.9%
One positive item	27.9%	25.6%	22.8%	17.3%
Two positive items	19.9%	19.2%	6.7%	8.7%
3 or 4 positive items	9.1%	5.7%	2.1%	3.0%

Table 34

SELF-RATINGS OF "BINGE" AND OTHER DRINKERS

	"Binge" Drinkers		Other Drinkers	
	Men	**Women**	**Men**	**Women**
Abstainer	0.7%	0.0%	17.6%	12.5%
Infrequent Drinker	9.6%	13.0%	47.7%	53.8%
Light drinker	27.9%	35.5%	22.3%	25.4%
Moderate drinker	50.8%	46.4%	11.9%	8.3%
Heavy drinker	10.3%	4.7%	0.5%	0.0%
Problem drinker	0.7%	0.5%	0.0%	0.0%

Table 35

SUBSTANCE USE OF "BINGE" DRINKERS, OTHER DRINKERS AND ABSTAINERS

	"Binge" Drinkers		Other Drinkers		Abstainers	
	Men	**Women**	**Men**	**Women**	**Men**	**Women**
Used marijuana in past year	47.6%	51.2%	22.0%	19.9%	0.0%	0.7%
Smoke cigarettes now	17.7%	30.8%	6.1%	15.8%	0.0%	2.1%

Table 36

UNSAFE DRIVING OF "BINGE" AND OTHER DRINKERS

	"Binge" Drinkers		Other Drinkers	
	Men	**Women**	**Men**	**Women**
Drive after 1 or 2 drinks	70.5%	58.4%	40.4%	23.6%
Drive after 3 or 4 drinks	44.2%	21.5%	12.6%	4.9%
Drive after 5 or more drinks	29.5%	8.4%	4.9%	1.5%
Rode with intoxicated driver	53.5%	53.3%	21.4%	24.2%
Drive faster than speed limit	88.4%	84.9%	85.8%	72.3%
Got speeding ticket	33.7%	24.3%	31.1%	12.6%
Went through stop sign	50.9%	50.0%	48.1%	39.6%
Ran red light	45.6%	42.6%	36.8%	35.6%
Drag raced	22.1%	9.8%	12.1%	4.6%
Had automobile accident	29.8%	25.4%	27.9%	15.8%

Table 37

USUAL HIGH SCHOOL DRINKING QUANTITY OF "BINGE" AND OTHER DRINKERS

	"Binge" Drinkers		Other Drinkers	
	Men	**Women**	**Men**	**Women**
One drink or less	6.1%	6.8%	36.0%	38.7%
Two drinks	5.7%	12.5%	21.2%	21.3%
Three drinks	11.5%	21.7%	13.8%	22.1%
Four drinks	12.2%	26.1%	12.2%	11.7%
Five or more drinks	64.5%	32.9%	16.9%	6.1%

Table 38

WHO ARE "BINGE" DRINKERS IN COLLEGE

Usual High School Drinking Amount	Men	Women
One drink or less	17.6%	8.6%
Two drinks	29.8%	27.7%
Three drinks	56.7%	39.0%
Four drinks	61.0%	59.2%
Five or more drinks	85.6%	77.8%

Table 39

HIGH SCHOOL DRINKING FREQUENCY OF "BINGE" & OTHER DRINKERS

	"Binge" Drinkers		Other Drinkers	
	Men	**Women**	**Men**	**Women**
Less than once a month	18.5%	22.1%	49.5%	56.9%
1-3 times a month	34.2%	41.9%	34.7%	33.6%
Once a week or more	47.3%	35.9%	15.8%	9.5%

Table 40

DRINKING PROBLEMS IN HIGH SCHOOL OF "BINGE" & OTHER DRINKERS

	"Binge" Drinkers		Other Drinkers	
	Men	**Women**	**Men**	**Women**
Not a problem	69.9%	74.2%	90.6%	91.4%
Minor problem	18.5%	17.0%	7.8%	6.6%
Moderate problem	8.6%	6.5%	1.6%	1.5%
Major problem	3.0%	2.3%	0.0%	0.5%

Table 41

PROPORTION OF BEST FRIENDS WHO DRINK

	"Binge" Drinkers		Other Drinkers	
	Men	**Women**	**Men**	**Women**
None or very few	1.7%	1.0%	12.9%	18.4%
Some	9.4%	13.9%	30.6%	25.0%
Most	52.5%	55.6%	44.6%	44.9%
All	36.4%	29.5%	11.9%	11.7%

Table 42

PROPORTION OF BEST FRIENDS WHO DRINK FIVE OR MORE DRINKS IN A ROW

	"Binge" Drinkers		Other Drinkers	
	Men	**Women**	**Men**	**Women**
None or very few	7.3%	16.7%	43.3%	58.3%
Some	30.8%	38.1%	39.2%	31.9%
Most	39.8%	37.1%	13.9%	8.9%
All	22.1%	8.0%	3.6%	0.8%

Table 43

TURNING DOWN A DRINK THAT IS OFFERED

	"Binge" Drinkers		Other Drinkers	
	Men	**Women**	**Men**	**Women**
Rarely or never	24.2%	20.2%	12.1%	6.5%
Sometimes	62.7%	65.6%	48.9%	47.7%
Often or always	13.1%	14.2%	39.0%	45.8%

Table 44

SITUATIONS IN WHICH IT IS APPROPRIATE TO GET HIGH OR DRUNK

	"Binge " Drinkers		Other Drinkers	
	Men	**Women**	**Men**	**Women**
At party	93.2%	91.9%	64.4%	55.9%
With friends	86.8%	86.9%	57.8%	52.6%
In bar or pub	58.6%	56.8%	36.8%	25.9%
At concerts/sports	53.7%	46.1%	22.9%	14.9%
On date	22.4%	17.6%	5.2%	7.0%
Alone at home	6.7%	4.9%	8.5%	4.9%
Before driving	5.0%	0.9%	0.5%	0.2%

Table 45

MOST FREQUENTLY CITED PROBLEMS

Social adjustment	69.9%
Drinking off campus	61.5%
Drinking on campus	47.9%
Eating disorders	47.9%
Date rape	40.3%
Vandalism	40.3%
Drug use	37.5%
Theft	35.6%
Racial problems	34.2%

Table 46

RELATIONSHIP OF ALCOHOL TO CAMPUS PROBLEMS

Violence	54.8%
Date rape	47.1%
Problems with police	44.4%
Vandalism	42.5%
Automobile accidents	36.1%

Table 47

ALCOHOL CONTROL POLICIES OF COLLEGES

Guidelines for alcohol use at events	83.6%
Alternative non-alcoholic beverages required	69.8%
Ban kegs on campus	69.8%
Registration of parties	61.5%
No alcohol advertising for events	60.3%
Adult supervision at parties	52.2%
Alcohol permitted on campus grounds	45.6%
Restriction on alcohol advertising	42.6%
Alcohol permitted in student union	39.4%
Alcohol permitted in dining hall	24.6%
Policy on sponsorship by alcohol companies	17.5%

Table 48

ALCOHOL ABUSE RESOURCES

Alcohol education program	89.0%
Counselling for problem drinkers	69.4%
Training program for RA's or tutors	64.3%
Orientation program on alcohol abuse	61.1%
Peer leader program	56.7%
Adult children of alcoholics group	54.2%
Alcohol education coordinator	47.9%
AA meetings on campus	42.5%
Al Anon meetings on campus	37.0%
Undergraduate course on alcohol abuse	30.1%
External funds for alcohol education	16.9%